



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

**REGION 6
HOUSTON BRANCH
10625 FALLSTONE RD.
HOUSTON, TEXAS 77099**

December 4, 2013

MEMORANDUM

SUBJECT: Contract Laboratory Program Data Review

FROM: Raymond Flores, Alternate ESAT Regional Project Officer
Environmental Services Branch (6MD-HL)

*N. Gannon
For A.F.*

TO: Brian Mueller, Superfund Project Manager (6SF-RL)

Site: FALCON REFINERY

Case#: 43795

SDG#: MF2B65

The EPA Region 6 Environmental Services Branch ESAT data review team has completed a review of the submitted Contract Laboratory Program (CLP) data package for the referenced site. The samples analyzed and reviewed are detailed in the attached Regional data review report.

The data package is acceptable for regional use. Problems, if any, are listed in the report narrative. If you have any questions regarding the data review report, please contact me at (281) 983-2139.

ENVIRONMENTAL SERVICES ASSISTANCE TEAM

ESAT Region 6
10625 Fallstone Road
Houston, TX 77099

Alion Science and Technology

MEMORANDUM

DATE: December 2, 2013
TO: Marvelyn Humphrey, ESAT PO, Region 6 EPA
FROM: Sonya Meekins, Data Reviewer, ESAT
THRU: Dominic G. Jarecki, ESAT Program Manager, ESAT p67
SUBJECT: CLP Data Review

Contract No.:	EP-W-06-030
TO No.:	030
Task/Sub-Task:	2-12
ESAT Doc. No.:	B030-212-0189
TDF No.:	6-12-030C
ESAT File No.:	I-0653

Attached is the data review summary for Case # 43795

SDG #	MF2B65
Site	Falcon Refinery

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INORGANIC REGIONAL DATA ASSESSMENT

CASE NO.	43795	SITE	Falcon Refinery
LABORATORY	MITKEM	NO. OF SAMPLES	6
CONTRACT#	EP-W-09-039	MATRIX	Water
SDG#	MF2B65	REVIEWER (IF NOT ESB)	ESAT
SOW#	ISM01.3	REVIEWER'S NAME	Sonya Meekins
SF#	303DD2MC	COMPLETION DATE	December 2, 2013

SAMPLE NO.	MF2B65	MF2B77			
	MF2B68	MF2B86			
	MF2B71				
	MF2B74				

DATA ASSESSMENT SUMMARY

	ICP	HG
1. HOLDING TIMES	O	O
2. CALIBRATIONS	O	O
3. BLANKS	O	O
4. MATRIX SPIKES	M	M
5. DUPLICATE ANALYSIS	O	O
6. ICP QC	M	
7. LCS	O	
8. SAMPLE VERIFICATION	O	O
9. OTHER QC	N/A	N/A
10. OVERALL ASSESSMENT	M	M

O = Data had no problems.

M = Data qualified due to major or minor problems.

Z = Data unacceptable.

NA = Not applicable.

ACTION ITEMS:

AREAS OF CONCERN: The matrix spike recoveries were outside the QC limits for arsenic, barium, and mercury. Serial dilution differences were above the QC limit for calcium, potassium, and zinc.

**COMMENTS/CLARIFICATIONS
REGION 6 CLP QA REVIEW**

CASE 43795 SDG MF2B65 SITE Falcon Refinery LAB MITKEM

COMMENTS: This SDG consisted of six water samples for dissolved metals (by ICP-MS and ICP-AES) and mercury analyses following SOW ISM01.3. The sampler designated sample MF2B74 for laboratory QC analyses.

The laboratory stated that because of very high concentrations of calcium and sodium all ICP-AES analyses were performed at up to 5X dilutions and all ICP-MS analyses were performed at 100X dilutions. The laboratory further diluted all samples 50X to bring the sodium concentrations within the calibration range for ICP-AES analyses.

S3VEM Review was performed for this package as requested by the Region. For this review option, laboratory contractual compliance and technical usability of the sample results are primarily determined by the EDM CCS Defect Report and NFG Data Review Results Report, respectively. The reviewer performs supplemental hardcopy forms checking and applies Region 6 guidelines, where necessary, to account for known limitations of the electronic review process. Therefore, the reviewer's final assessments may deviate from those found in the EDM reports. The NFG Data Review Results Report for the SDG is attached to this report as an addendum for additional information.

OVERALL ASSESSMENT: Some results were qualified for all samples because of problems with matrix spike recoveries and/or serial dilution differences. ESAT's final data qualifiers in the DST indicate the technical usability of all reported sample results. An Evidence Audit was conducted for the CSF, and the audit results were reported on the Evidence Inventory Checklist. The DST included in this report is the final version.

INORGANIC ACRONYMS

CCB	Continuing Calibration Blank
CCS	Contract Compliance Screening
CCV	Continuing Calibration Verification
CN	Cyanide
CRQL	Contract Required Quantitation Limit
CSF	Complete SDG File
DST	Data Summary Table
EDM	EXES Data Manager
HG	Mercury
ICB	Initial Calibration Blank
ICP	Inductively Coupled Plasma
ICP-AES	Inductively Coupled Plasma-Atomic Emission Spectroscopy
ICP-MS	Inductively Coupled Plasma-Mass Spectrometry
ICS	Interference Check Sample
ICV	Initial Calibration Verification
IS	Internal Standard
LCS	Laboratory Control Sample
MDL	Method Detection Limit
NFG	National Functional Guidelines
PE	Performance Evaluation
%D	Percent Difference
%R	Percent Recovery
%RI	Percent Relative Intensity
%RSD	Percent Relative Standard Deviation
QA	Quality Assurance
QC	Quality Control
QL	Quantitation Limit
RPD	Relative Percent Difference
RSCC	Regional Sample Control Center
S3VEM	Stage 3 Validation Electronic and Manual (previously called Modified CADRE Review)
S4VEM	Stage 4 Validation Electronic and Manual (previously called Standard Review)
SDG	Sample Delivery Group
SMO	Sample Management Office
SOW	Statement of Work
SQL	Sample Quantitation Limit
TAL	Target Analyte List

HEADER DEFINITIONS FOR INORGANIC EXCEL DST

CASE: Case Number
SDG: SDG Number
EPASAMP: EPA Sample Number
LABID: Laboratory File/Sample ID
MATRIX: Sample Matrix
QCCOD: Sample QC Code
SMPQUAL: Sample Qualifier
ANDATE: Sample Analysis Date
ANTIME: Sample Analysis Time
CASNUM: Compound CAS Number
ANALYTE: Compound Name
CONC: Compound Concentration
VALDQAL: Region 6 Inorganic Data Validation Qualifier (see
Inorganic Data Qualifier Definitions on the next page)
UNITS: Concentration Units
ADJCRQL: Adjusted Contract Required Quantitation Limit Value
SMPDATE: Sampling Date
PRPDATE: Sample Preparation Date
LRDATE: Laboratory Receipt Date
LEVEL: Sample Level
PERSOLD: Sample Percent Solids
SMPWTVL: Sample Weight (Soil Samples)/Initial Sample Volume (Water
Samples)
FINLVOL: Final Sample Volume
METHOD: Method of Analysis
STATLOC: Station Location

Disclaimer: ESAT verified the accuracy of the information reported in the Excel DST only for the following data fields: CASE, SDG, EPASAMP, MATRIX, ANALYTE, CONC, UNITS, ADJCRQL, VALDQAL, and PERSOLD. The data qualifiers in the VALDQAL column indicate the technical usability of the reported results.

INORGANIC DATA QUALIFIER DEFINITIONS

The following definitions provide brief explanations of the ESAT-Region 6 qualifiers assigned to results in the Data Summary Table.

- U Not detected at reported quantitation limit.
- L Reported concentration is between the MDL and the CRQL.
- J Result is estimated because of outlying quality control parameters such as matrix spike, serial dilution, etc., or the result is below the CRQL.
- R Result is unusable.
- F A possibility of a false negative exists.
- UC Reported concentration should be used as a raised quantitation limit because of blank effects and/or laboratory or field contamination.
- + High biased. Actual concentration may be lower than the concentration reported.
- Low biased. Actual concentration may be higher than the concentration reported.
- W The result should be used with caution. The result was reported on a dry weight basis although the sample did not conform to the EPA Office of Water definition of a soil sample because of its high water content (>70% moisture).

TARGET SHEET

SITE NAME: FALCON REFINERY

CERCLIS I.D.: TXD086278058

TITLE OF DOC.: CONTRACT LABORATORY PROGRAM DATA
REVIEW SUMMARY CASE NO. 43795 SDG NO.
MF2B65 FOR FALCON REFINERY

DATE OF DOC.: 12/04/2013

NO. OF PGS. THIS TARGET SHEET REPLACES: 20

SDMS #: 9598046 **KEYWORD:**

CONFIDENTIAL ? ☐ **MISSING PAGES ?** ☒

ALTERN. MEDIA ? ☐ **CROSS REFERENCE ?** ☐

LAB DOCUMENT ? ☐ **LAB NAME:**

ASC./BOX #: ☐

CASE #: **SDG #:**

COMMENTS : PAGES 8 - 27 OF FILE ARE CORRUPT AND COULD NOT
BE CONVERTED TO PDF FORMAT.